

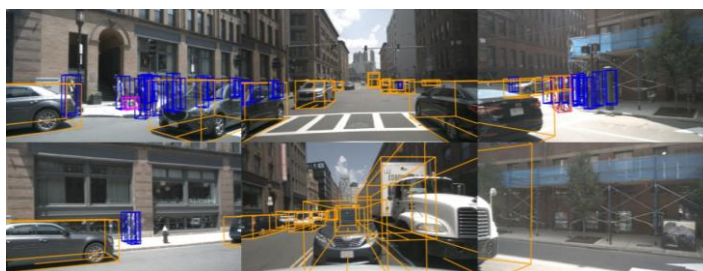
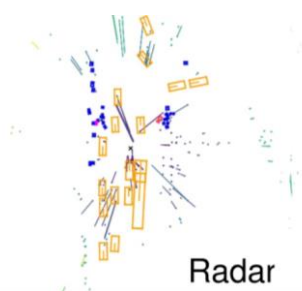
Internship context

Based in Saclay (Essonnes), the LIST is one of the two institutes of CEA Tech, the Technological Research Division of the CEA. Dedicated to intelligent digital systems, its mission is to carry out technological developments of excellence on behalf of industrial partners, in order to create value.

Within the LIST, the Laboratory of Vision and Learning for Scene Analysis (LVA) conducts its research in the field of computer vision and artificial intelligence for the perception of intelligent and autonomous systems. The laboratory's research themes include visual recognition, behavior and activity analysis, large-scale automatic annotation, and perception and decision models.

Missions

The goal of this internship is to investigate advanced methods for fusing complementary information from cameras and radars to achieve a robust and accurate 3D understanding of the driving environment (3d detection, 3d semantic segmentation...). Cameras provide rich semantic and structural cues for object recognition and scene interpretation, while radars deliver precise range and velocity measurements that remain reliable under adverse weather and lighting conditions. By combining these modalities, the intern will explore novel deep learning architectures for multi-sensor fusion, with the aim of improving accuracy in complex driving scenarios.



To achieve these objectives, the intern will be expected to:

- Review the state of the art on camera-radar fusion for 3D perception
- Design, develop and evaluate a novel deep learning models for multi-sensor fusion
- Contribute to research reports and potential publications

Qualifications

- Students in their 4th or 5th year of studies (M1, M2 or gap year)
- Computer vision skills
- Machine learning skills (deep learning, perception models, generative AI...)
- Python proficiency in a deep learning framework (especially TensorFlow or PyTorch)

Job-related benefits

Joining the CEA List and the LVA as an intern means:

- Working in one of the most innovative research organizations in the world, addressing societal challenges to build the world of tomorrow
- Discovering a rich ecosystem: privileged connections between the industrial and academic sectors
- Conducting research autonomously and creatively: encouragement to valorize results (scientific articles, patents, open-source codes...)
- Join a young and dynamic team
- Benefit from an internal computing infrastructure with more than 300 state-of-the-art GPUs
- Receive a stipend between €1300 and €1400 per month
- Have the opportunity to continue with a PhD or as a research engineer after the internship
- Have the possibility of remote work, receive a 75% reimbursement on public transportation costs, and benefit from the "mobili-jeune" aid to reduce rent costs...